

WHAT IS CLAIMED IS:

1           1. A client wireless module, for handling communications to and from an  
2 access point wireless module, comprising:  
3           an 11b processing section, for processing at least data to be transmitted to the access  
4           point into representations of a transmit signal;  
5           an OFDM processing section, for processing at least a representation of a receive signal  
6           from the access point into receive data;  
7           at least one transmit antenna, coupled to the 11b processing section;  
8           at least one receive antenna, coupled to the OFDM processing section; and  
9           logic for routing information between a client and the client wireless module.

1           2. The client wireless module of claim 1, wherein the at least one transmit  
2 antenna comprises a plurality of transmit antennas.

1           3. The client wireless module of claim 1, wherein the at least one receive  
2 antenna comprises a plurality of receive antennas.

1           4. A client wireless module, for handling communications to and from an  
2 access point wireless module, comprising:  
3           an OFDM processing section, for processing at least data to be transmitted to the access  
4           point into representations of a transmit signal;  
5           an 11b processing section, for processing at least a representation of a receive signal  
6           from the access point into receive data;  
7           at least one transmit antenna, coupled to the OFDM processing section;  
8           at least one receive antenna, coupled to the 11b processing section; and  
9           logic for routing information between a client and the client wireless module.

1           5. The client wireless module of claim 4, wherein the at least one transmit  
2 antenna comprises a plurality of transmit antennas.

1           6. The client wireless module of claim 4, wherein the at least one receive  
2 antenna comprises a plurality of receive antennas.

1           7. An access point wireless module, for handling communications to and from  
2 a client wireless module, comprising:

3       an 802.11b processing section, for processing at least data to be transmitted to the client  
4            into representations of a transmit signal;  
5       an 802.11g processing section, for processing at least a representation of a receive signal  
6            from the client into receive data;  
7       at least one transmit antenna, coupled to the 802.11b processing section;  
8       at least one receive antenna, coupled to the 802.11g processing section; and  
9       logic for routing information between an access point and the access point wireless  
10      module.

1               8. The access point wireless module of claim 7, wherein the at least one  
2      transmit antenna comprises a plurality of transmit antennas.

1               9. The access point wireless module of claim 8, wherein the at least one  
2      receive antenna comprises a plurality of receive antennas.

1               10. An access point wireless module, for handling communications to and  
2      from a client wireless module, comprising:

3       an 802.11g processing section, for processing at least data to be transmitted to the client  
4            into representations of a transmit signal;  
5       an 802.11b processing section, for processing at least a representation of a receive signal  
6            from the client into receive data;  
7       at least one transmit antenna, coupled to the 802.11g processing section;  
8       at least one receive antenna, coupled to the 802.11b processing section; and  
9       logic for routing information between an access point and the access point wireless  
10      module.

1               11. The access point wireless module of claim 10, wherein the at least one  
2      transmit antenna comprises a plurality of transmit antennas.

1               12. The access point wireless module of claim 10, wherein the at least one  
2      receive antenna comprises a plurality of receive antennas.

1               13. A method of wireless communication between a client device and an  
2      access point, wherein a client device is a wireless network station that is portable, mobile or  
3      portable and mobile, the method comprising:  
4               transmitting upstream data from the client device using an 802.11b protocol;

5 receiving the upstream data at the client device;  
6 transmitting downstream data from the access point using an 802.11g protocol; and  
7 receiving the downstream data at the client device.

1 14. A method of wireless communication between a first station and a second  
2 station, the method comprising:

3 at the first station, transmitting data packets to the second station using a first data  
4 modulation and a first data rate;  
5 at the first station, transmitting acknowledgement packets to the second station in  
6 response to data packets received from the second station, using a first  
7 acknowledgement modulation and a first acknowledgement rate;  
8 at the second station, transmitting data packets to the first station using a second data  
9 modulation and a second data rate; and  
10 at the second station, transmitting acknowledgement packets to the first station in  
11 response to the data packets received from the first station, using a second  
12 acknowledgement modulation and a second acknowledgement rate,  
13 wherein the first data rate is distinct from at least one of the second data rate, the first  
14 acknowledgement rate, or the second acknowledgement rate.

1 15. A method of claim 14, wherein the first data modulation is distinct from at  
2 least one of the second data modulation, the first acknowledgement modulation, or the second  
3 acknowledgement modulation.

1 16. A method of claim 14, wherein the first data modulation, the second data  
2 modulation, the first acknowledgement modulation, and the second acknowledgement  
3 modulation are selected from an 802.11b rate and an OFDM rate.

1 17. A method of claim 16, wherein at least one of the first data modulation,  
2 the second data modulation, the first acknowledgement modulation, and the second  
3 acknowledgement modulation is an 802.11b modulation and at least one of the modulations is  
4 an OFDM modulation.